

quacks and others operating contrary to the law.

While the Medical Practice act is designed primarily for the protection of the public, and while any taxation for this protection should be in the nature of a public tax, we find on inquiry that it is a sound principle of jurisprudence to tax a craft whose calling requires regulation in order to carry out such regulation.

The accompanying letter from the Secretary-Treasurer of the Board of Medical Examiners will explain the machinery by which the tax is to be collected.

BOARD OF MEDICAL EXAMINERS OF THE
STATE OF CALIFORNIA.

Sacramento, California, July 3, 1917.

Dear Doctor:

Replying to your recent inquiry beg to advise that among the amendments passed by the 1917 Legislature was one providing for a \$2.00 registration fee payable to the Board of Medical Examiners by all holders of any form of certificate issued by this or prior boards regulating the healing art in California.

The first payment of this fee is due January 1, 1918, and subsequently on January first of each year. Failure to pay the fee within 60 days after January first of each year automatically revokes the certificate and a fee of \$10.00 must be paid to the Board of Medical Examiners in order to restore such certificate as may be thus revoked.

Thirty days prior to January first of each year the Board expects to forward a notice to all certificate holders, and in order to insure delivery of such notice, the licentiates must keep the office of the Board of Medical Examiners notified of each change of address, lest the notice fail to be delivered and the payment of the fee be neglected.

The Board expects to forward a copy of the directory to be published January first of each year, to each individual licentiate who forwards his fee as above noted.

Very truly yours,

(Signed:)

CHARLES B. PINKHAM, M. D.,
Secretary-Treasurer.

EDITORIAL COMMENT.

When motoring, camping or picnicking, the first desideratum for a safe and sane outing is a safe and sane water supply. What doth it profit a man to gain the whole wide out-doors and contract a typhoid or dysentery infection? Summer typhoid is rightly named. Autumnal fever was rightly named. And the reason is well-known, when we stop to consider. If a physician is only a physician in his consulting room and professional

rounds, then better for all were he not a physician at any time. He it is who must see that the picnic has safe water to drink and that the outing party does not risk its individual health on sewage which it mistakes for a beverage.

In the June bulletin of the California State Board of Health, Frank Bachmann reiterates that sparkling clear water is more apt to be a disease carrier than grossly contaminated water. All surface waters are more or less subject to dangerous infection. He states that typhoid bacilli may live thirty days in water of ordinary temperature and much longer in colder waters. Bachmann emphasizes the advantage of boiled water as the safest when boiling is practicable. When boiling is not feasible, he recommends the use of tincture of iodine, three drops to the quart of clear waters, as an efficient bactericide. If the water is cloudy or contains much sediment, six drops should be used per quart, or enough to produce a very faint brownish discoloration. After the iodine has acted for fifteen minutes, a pinch of ordinary photographic "hypo," (sodium thio-sulphate), clears the water and removes the last traces of iodine. The fifteen minute interval is important and also the brown color. In this strength there is no disadvantage from the chemicals used.

If typhoid is a sanitary crime, then is the physician an arch-criminal if he does not insure safe drinking water for outing parties with which he may be associated. With the present record of typhoid vaccination, every physician should be an example of such vaccination and should preach it to his friends and patients. Especially should he do this, since the State Board of Health will furnish the vaccine free of charge. Why not use the Board of Health more and become missionaries of the prevention of disease by such means as have here been enumerated?

As man pursues his onward and upward march, so does he tend to limit the hirsute endowment of his face, even as nature tends to limit the hairy protection of his cranium. A full beard is rare enough to excite comment and as a sanitary measure in modern camp and war conditions, the beard has had its day. Even the mustache is becoming scarce and has to answer the same indictment as its full-blown progenitor. Beards are said to serve but three functions—to heighten confidence in the masculinity of the owner, to cover a feeble chin, or to incite confidence in the beholder as to the age of the bearded. Perhaps all three motives are present to a mixed degree. Perhaps, too, there is an element of disinclination to exertion necessary to be clean shaven, or even of desire for a difference from the common fashion, which last may be after all a tenable argument. In any case, the institution of the beard seems doomed under modern battle conditions and does not bear the scrutiny of the microscope or the aseptic conscience. Down with the beard and may we as a profession be clean shaven, clean principled, and unashamed either of our chins or of our practiced ethics.

The National Committee for Mental Hygiene has created a subcommittee on furnishing hospital units for nervous and mental disorders to the United States Government, the project having been approved by Surgeon General W. C. Gorgas of the U. S. Army.

This subcommittee, of which Dr. Pearce Bailey of New York is chairman, is authorized to secure the services of alienists and neurologists to be commissioned in the Officers' Reserve Corps, Medical Section, and to serve in the neuro-psychiatric units which are to be attached to the base and other hospitals of the military services of the United States. Further information will be given, and application forms sent to physicians qualified in this branch of medicine, on application to The National Committee for Mental Hygiene, 50 Union Square, New York City.

Don't you want to help YOUR Journal? Last month only 119 sent in the Automobile Coupon. We cannot hope to get the advertisements of this trade unless you do your little share. It is your Journal and it is strictly up to you to decide whether you are sufficiently interested to aid in increasing its funds. The coupon is on page xxxiv of the back advertising section. If you did not do so, fill it out and send it. It will pay the automobile industry to advertise with us. All we have to do is to show them.

The next evil which should be attacked with the utmost vigor by all boards of health is alcoholism. Public opinion needs to be enlightened on two points with regard to the use of alcohol as a beverage.

In the first place, it should be brought home to the entire population that the habitual use of alcoholic beverages reduces, in a serious degree, the productive efficiency of the community.

In the second place, recent experiments on the effects of alcohol on the nerves and glands of the human body have demonstrated beyond a doubt that alcohol invariably does harm, and never any good either in health or disease. The use of alcohol as a defense against exposure or fatigue has been given up by all sensible persons.

The evil is rooted, first, in what are called vested interests—that is, in the investment of large amounts of capital in the plants which produce, store and distribute beers, wines and spirits; and secondly, in the methods of taxation to which the white nations are accustomed. Heretofore the medical profession and the public health officers have given an uncertain sound concerning the use of alcohol.

It remains for the boards of health to attack this hideous evil with the weapons and in the spirit of preventive medicine. They should bring to the work all recent knowledge concerning the effects of alcohol on the human body, call to their aid legislators who can find equivalents for the public revenue now derived from the manufacture and sale of alcoholic drinks, and re-enforce to the utmost the wise counsellors who by moral teachings have brought about during the past fifty years considerable improvements in regard to the use of alcohol in the more intelligent and conscientious classes.—Haven Emerson, M. D., Amer. Jour. Pub. Health, June, 1917.

Original Articles

SOME HEART PROBLEMS SUGGESTING THE NECESSITY FOR A CLOSER ALLIANCE BETWEEN THE PHYSIOLOGISTS, BIO-CHEMISTS AND CLINICIAN.*

By WM. WATT KERR, M. D., San Francisco, Professor of Clinical Medicine University of California.

For at least five years physiologists have agreed that lack of oxygen in the *blood* is rarely a stimulant to the respiratory center, but that the very slightest increase of carbon dioxide, resulting from any increase in the body processes, at once augments the rate and depth of respiration to such an extent that the additional inspired air furnishes enough oxygen to supply the new demand. Nevertheless, the great majority of clinicians still explain the symptoms of cardiac dyspnoea, and base their treatment on the older supposition.

In the *Journal of the American Medical Association* (November 4, 1911), the writer published a paper in which attention was called to the observations of Martin Flack, as well as those of Bachman, regarding the toxic effect of lactic acid upon the heart; likewise to the researches of Ryffel and others into the sources and fate of lactic acid in the human body, and expressed the hope that the laboratory work of these different investigators would lead to a more rational and successful cardio-therapy than that at present in vogue.

As full references to the work done by these gentlemen will be found in the article above mentioned it is unnecessary to repeat them in detail. Nine years ago Flack showed that if a frog's ventricle is placed in a weak solution of lactic acid (1 in 10,000 normal saline solution) the contractions become less and less, so that finally the ventricle stops in a state of complete relaxation; and about the same time Bachman, by perfusing rabbits' hearts with solutions of lactic acid obtained increased rate with greatly diminished force of contraction and a simultaneous dilatation of the coronary arteries, a fact that would indicate lactic acid to be a paralyzing agent for all muscles of the cardio-vascular system; neither did it require a strong solution, but even amounts so small as those occasionally found in the blood of a normal rabbit had some paralyzing effect.

One of the first thoughts suggested by these experiments is an interpretation of what we call acute dilatation of the heart as it occurs during exertion, a condition that is generally described as if it were a purely mechanical effect of "heart strain." Most of us are familiar with the breakdowns that take place during or immediately after an athletic contest, and have seen them in varying degrees of severity, some when the heart recovered its normal dimensions within two or three days, and others where the change was more prolonged or even permanent. Ryffel (*Quarterly Journal of Medicine*, Vol. 3, No. 10, January, 1910), found the lactic acid in urine from competitors in a

* Read before the St. Francis Hospital Clinical Society, March 31, 1916.